

ATTACHMENT B - 2015 EXISTING AND FUNDED NETWORK -- CONSTRUCTION COSTS										
County	Route	From	To	Distance (Lane Miles)		Distance (Lane Miles)		HOT Cost	HOT Cost (millions) Estimated Upgrade Costs (See Note 1)	Comments
				WB	EB	SB	NB	Estimated Upgrade Costs (See Note 1)		
CC	SR4	SR 160	Port Chicago Highway	15.3	15.4			\$ 108,980,150	\$ 108.98	50% Medium and 50% High Cost Option: Soundwall to outside makes widening difficult.
Total Corridor SR4				15.3	15.4			\$ 108,980,150	\$ 108.98	
CC		Carquinez Bridge	Central Ave (Alameda County Line)	16.0	14.6			\$ 134,851,217	\$ 134.85	High Cost Option: Total median width about 6' throughout the corridor (2' either side pluss 2' median barrier). Approx. 10 bridge structures.
ALA	I-80	Central Ave (Alameda County Line)	Bay Bridge Toll Plaza	5.9	6.0			\$ 52,442,140	\$ 52.44	
SOL	I-80	Air Base Pkwy IC	SR 12	6.6	6.7			\$ 35,813,994	\$ 35.81	Medium Cost Option
Total Corridor I-80				28.5	27.3			\$ 223,107,350	\$ 223.11	
ALA	SR 84	Newark Blvd	Paseo Padre/Thornton incl. Toll Plaza Dumbarton Bridge	3.5				\$ 15,424,159	\$ 15.42	High Cost Option: PSR describes only 1 mile of HOV widening with possible ROW take. No specific plan details.
Total Corridor SR 84				3.5				\$ 15,424,159	\$ 15.42	
SC	SR 85	US 101 (South San Jose)	US 101 (Mountain View)			26.5	26.3	\$ 119,892,648	\$ 119.89	Medium Cost Option: North of I-280 (approx 5 miles). 50% Low Cot Option and 50% Medium Cost Option south of I-280. Standard outside and inside shoulders
Total Corridor SR 85						26.5	26.3	\$ 119,892,648	\$ 119.89	
SC	SR 87	US 101	SR 85			9.1	9.2	\$ 29,967,402	\$ 29.97	Low Cost Option: Construction cost for the VTA HOV segment on this route (7 miles) was \$68 Million. Input from VTA suggests using a low range cost to convert to HOT lane.
Total Corridor SR 87						9.1	9.2	\$ 29,967,402	\$ 29.97	
ALA	SR 92	Hesperian	Toll Plaza - San Mateo Bridge	1.6				\$ 7,051,044	\$ 7.05	High Cost Option
Total Corridor SR 92				1.6				\$ 7,051,044	\$ 7.05	
SM	US 101	Whipple Ave	San Mateo/Santa Clara County Line			7.0	7.0	\$ 61,696,635	\$ 61.70	High Cost Option
SC	US 101	San Mateo/Santa Clara County Line	Cochrane			35.0	34.0	\$ 145,978,658	\$ 145.98	75% segment is Low Cost Option (South of San Jose to Cochrane) and 25% of segment is equally split between High and Medium Cost Option: From San Jose to north
MAR	US 101	SB 101/Seminary Ave & NB 101/SR1	SR 37			13.8	14.9	\$ 82,010,454	\$ 82.01	25% Low and 50 % Medium Cost Option: Novato, 25% High Cost Option: Southern Marin
SON	US 101	Old Redwood Highway (Petaluma)	Windsor River Rd			21.7	21.2	\$ 115,520,327	\$ 115.52	Medium Cost Option: Santa Rosa.
Total Corridor US 101						77.5	77.1	\$ 405,206,075	\$ 405.21	
SC	SR 237	I-880	Mathilda I/C	7.0	7.0			\$ 61,696,635	\$ 61.70	High Cost Option: Outside shoulders 12'. Median shoulders vary from areas with 6' median shoulder to 10' -12' . Highway segment includes 11 bridge structures
Total Corridor SR 237				7.0	7.0			\$ 61,696,635	\$ 61.70	
SC	I-280	Magdalena Ave	Leland Ave			11.5	11.1	\$ 60,856,862	\$ 60.86	Medium Cost Option
Total Corridor SR I-280						11.5	11.1	\$ 60,856,862	\$ 60.86	
ALA	I-580	Hacienda	Greenville		10.8			\$ 29,082,040	\$ 29.08	Medium Cost Option: Widen to outside
Total Corridor I-580					10.8			\$ 29,082,040	\$ 29.08	
SC	I-680	Caleveras	Alameda/Santa Clara County Line			2.5	2.5	\$ 12,981,954	\$ 12.98	Medium Cost Option: NB direction. Cost of SB HOT lane from I-680 Smart Carpool Project (2.5 mill/lane mile)
ALA	I-680	Alameda/Santa Clara County Line	SR 84			11.5	10.8	\$ 57,832,040	\$ 57.83	Medium Cost Option: NB direction. Cost of SB HOT lane from I-680 Smart Carpool Project (2.5 mill/lane mile)
CC	I-680	Marina Vista	Alcosta Blvd.			26.0	22.3	\$ 130,061,347	\$ 130.06	Medium Cost Option
Total Corridor I-680						40.0	35.6	\$ 200,875,342	\$ 200.88	
ALA	I-880	Marina	SR 237			25.0	22.9	\$ 128,984,235	\$ 128.98	Medium Cost Option
ALA	I-880	16 th Street	Merge with I-80 W				1.8	\$ 6,389,716	\$ 6.39	50 % Medium to 50 % High Cost Option; Appears that median shoulder widen for future lane and shld.
Total Corridor I-880						25.0	24.7	\$ 135,373,950	\$ 135.37	
Sub-Total Lane Miles and Total Cost				55.9	60.5	189.6	184.0	\$ 1,397,513,658	\$ 1,397.51	
Total Lane Miles all Directions					490.0			\$ 2,852,069	\$2.9 M/mile	
Note 1: HOT upgrade cost may be a combination of the different costing options (low, medium, high) or one option is chosen due to										

ATTACHMENT C - HOT NETWORK SEGMENTS ADDED 2015 and 2030 CONSTRUCTION COSTS															
County	Route	From	To	Distance (Lane Miles) Added		Distance (Lane Miles) Added		Total Lane Miles HOT Lane Network (2015+2030)				HOV Lanes Added in 2030 Network	HOT Cost (millions)	Total HOT Cost and HOV Cost	Comments
				WB	EB	SB	NB	WB	EB	SB	NB	Cost /Lane Mile (1) 8.00	Estimated Upgrade Costs	(in Millions)	
CC	SR4	Port Chicago Highway	I-680	4.1	3.7			19.4	19.1			\$ 77.22	\$ 27.69	\$ 104.91	50% Medium and 50% High Cost Option: Soundwall to outside makes widening difficult. Used \$ 9.9 million per lane mile for HOV estimate based on PSRs available for the corridor. No cost to convert HOV connector to HOT lane due to no additional ITS elements or striping requirements
CC	SR 4/I-680	HOV Connector Facility										\$ 75.00	\$ -	\$ 75.00	
Total Corridor SR4				4.1	3.7			19.4	19.1			\$ 152.22	\$ 27.69	\$ 179.91	
ALA/CC	I-80	Pomona/San Pablo thru IC and to Cummings (Carquinez Bridge)	Bay Bridge Toll Plaza					21.9	20.6						
SOL	I-80	Yolo County Line	SR 37	32.7	32.5			32.7	32.5			\$ 521.60	\$ 141.17	\$ 662.77	50% Low and 50% Medium Cost Option: Outside shoulder widths vary (10'-13') and the median shoulder width varies from 20' (south of SR 37) to 30' (north of Vallejo). 7 bridge structures (No PSR)
SOL	I-80	SR 37	Carquinez Bridge	4.6	4.6			4.6	4.6			\$ 73.60	\$ 24.77	\$ 98.37	Medium Cost Option: PSR shows \$48 mill. Need to be confirmed HOV widening assumed to be funded in Transportation 2030 Plan
SOL	I-80	Air Base Pkwy IC	Suisun Valley Rd/I-680					6.6	6.7						
Total Corridor I-80				37.3	37.1			65.8	64.4			\$ 595	\$ 166	\$ 761	
ALA	SR 84	I-880/Newark Blvd	Paseo Padre/Thornton incl. Toll Plaza Dumbarton Bridge					3.5							
Total Corridor SR 84								3.5							
SC	SR 85	SR 87 Almaden	Moffett US 101							26.4	26.1				
Total Corridor SR 85										26.4	26.1				
SC	SR 87	US 101 Skyport	Capitol Expwy SR 85							9.1	9.2				
Total Corridor SR 87										9.1	9.2				
ALA	SR 92	Clawiter	Toll Plaza - San Mateo Bridge					1.6							
Total Corridor SR 92								1.6							
SM	US 101	Millbrae Ave	Whipple Ave			11.4	11.7			11.4	11.7	\$ 184.80	\$ 101.80	\$ 286.60	High Cost Option, No PSR
SC	US 101	Cochrane	SR 25			14.9	14.6			56.9	55.6	\$ 182.90	\$ 48.31	\$ 231.21	Low Cost Option, HOV Costs based on VTP 2030, Approx. 6.2 million/lane mile
MAR	US 101	SR37	San Antonio Rd			9.7	9.4					\$ 285.19	\$ 51.43	\$ 336.62	Medium Cost Option for HOT conversion. HOV cost is 17.32 mill/lane mile based on estimate from the Marin/Sonoma Narrows project provided to MTC. HOV widening assumed funded in Transportation 2030 Plan
SON	US 101	San Antonio Rd	Old Redwood Highway (Petaluma)			7.8	7.6			53.0	53.1	\$ 229.95	\$ 41.47	\$ 271.42	Medium Option for HOT conversion. HOV cost is 17.32 mill/lane mile based on estimate from the Marin/Sonoma Narrows project provided to MTC. HOV widening assumed funded in Transportation 2030 Plan
Total Corridor US 101						43.8	43.3			121.3	120.4	\$ 882.84	\$ 243.01	\$ 1,125.85	
SC	SR 237	Mathilda	SR 85	2.7	2.9			9.7	9.9			\$ 44.80	\$ 24.68	\$ 69.48	High Cost Option: Outside shoulders 12'. Median shoulders vary from areas with 6' median shoulder to 10' -12' . Highway segment includes 11 bridge structures HOV widening from Mathilda to SR 85 assumed funded in Transportation 2030 Plan
Total Corridor SR 237				2.7	2.9			9.7	9.9			\$ 44.80	\$ 24.68	\$ 69.48	
SC	I-280	Leland Ave	US 101			3.5	4.2			15.0	15.3	\$ -	\$ 20.73	\$ 20.73	Medium Cost Option, No PSR
Total Corridor I-280						3.5	4.2			15.0	15.3	\$ -	\$ 20.73	\$ 20.73	
ALA	I-580	Greenville	San Joaquin County Line		10.2							\$ 102.00	\$ 27.47	\$ 129.47	Medium Cost Option;PSR for part of segment shows \$10 mil/HOV lane mi WB HOV from Greenville to Tassajara assumed funded in Transportation 2030 Plan
ALA	I-580	San Joaquin County Line	I-680	20.9				20.9	21.0			\$ 107.30	\$ 56.28	\$ 163.58	Medium Cost Option;PSR for part of segment shows \$10 mil/HOV lane mi WB HOV from Greenville to Tassajara assumed funded in Transportation 2030 Plan
ALA	I-580/I-680	Connector Facility										\$ 325.00	\$ -	\$ 325.00	No cost to convert HOV connector to HOT lane due to no additional ITS elements or striping requirements. Note that the connector cost comes from a preliminary cost estimate and is subject to change.
Total Corridor I-580				20.9	10.2			20.9	21.0			\$ 534.30	\$ 83.75	\$ 618.05	
ALA	I-680	SR 84	Calveras/SR 237							14.0	13.3				
SC	I-680	Caleveras	US 101			9.0	9.0			9.0	9.0	\$ -	\$ 48.47	\$ 48.47	Medium Cost Option
ALA	I-680	Alcosta Blvd	SR 84			10.6	10.5			10.6	10.5	\$ 137.15	\$ 56.82	\$ 193.97	Medium Cost Option, HOV estimate for portion of NB 680 equal to 6.5 million/lane mile \$2006
CC	I-680/80	HOV Connector										No cost available at this time			No cost to convert HOV connector to HOT lane due to no additional ITS elements or striping requirements
CC	I-680	N/O Waterfront (Benicia Bridge)	Alcosta Blvd.			1.2	3.6			27.2	25.9	\$ 38.40	\$ 12.93	\$ 51.33	Medium Cost Option, No PSR
SOL	I-680	I-80	I-780			12.4	12.3			12.4	12.3	\$ 197.60	\$ 66.51	\$ 264.11	Medium Cost Option
Total Corridor I-680						33.2	35.4			73.2	71.0	\$ 373.15	\$ 184.72	\$ 557.87	
ALA	I-880	98th Ave	Marina (SB) and Lewelling (NB)			3.3	4.3					\$ 26.00	\$ 20.33	\$ 46.33	Medium Cost Option, No PSR
SC	I-880	SR 237	US 101			3.3	4.3			31.5	31.5	\$ -	\$ 20.33	\$ 20.33	Medium Cost Option, No PSR
ALA	I-880	I-880 SFOBB approach prior to off ramp to I-80 E	I-880 SFOBB approach prior to merge with I-80 W								1.8				
Total Corridor I-880						6.5	8.6			31.5	33.3	\$ 26.00	\$ 40.66	\$ 66.66	
Sub-Total Lane Miles and Cost				65.0	53.9	87.0	91.5	120.9	114.4	276.5	275.3	\$ 2,609	\$ 791	\$ 3,400	
Total Lane Miles all Directions/Total Upgrade Cost				297.4				787.1				\$ 11.43	\$ 3,400		
Note 1: Use \$ 8 million per lane mile if no PSR is available															
Note 2: HOT upgrade cost may be a combination of the different costing options (low, medium, high) or one option is chosen due to specific information available.															

ATTACHMENT D: 2030 CONNECTED NETWORK (2015 Network Plus Segments Added Through 2030) CONSTRUCTION										
County	Route	From	To	Total Lane Miles HOT Lane Network (2015+2030)				HOT Upgrade Cost (millions)	Total HOT Cost and HOV Cost	Comments
				WB	EB	SB	NB	Estimated Upgrade Costs (2)	(in Millions)	
CC	SR4	SR 160	I-680	19.4	19.1			\$ 136.67	\$ 213.89	Medium to High Cost Option: Soundwall to outside makes widening difficult.
CC	SR 4/I-680	HOV Connector Facility						\$ -	\$ 75.00	No cost to convert HOV connector to HOT lane due to no additional ITS elements or striping requirements
Total Corridor SR4				19.4	19.1			\$ 136.67	\$ 288.89	
CC	I-80	Carquinez Bridge	Central Ave (Alameda County Line)	16.0	14.6			\$ 134.85	\$ 134.85	High Cost Option: Total median width about 6' throughout the corridor (2' either side pluss 2' median barrier). Approx. 10 bridge structures.
ALA	I-80	Central Ave (Alameda County Line)	Bay Bridge Toll Plaza	5.9	6.0			\$ 52.44	\$ 52.44	High Cost Option: Total median width about 6' throughout the corridor (2' either side pluss 2' median barrier). Approx. 10 bridge structures.
SOL	I-80	Yolo County Line	SR 37	32.7	32.5			\$ 141.17	\$ 662.77	Low and Medium Cost Option: Outside shoulder widths vary (10'-13') and the median shoulder width varies from 20' (south of SR 37) to 30' (north of Vallejo). 7 bridge structures
SOL	I-80	SR 37	Carquinez Bridge	4.6	4.6			\$ 24.77	\$ 98.37	Medium Cost Option HOV widening assumed to be funded in Transportation 2030 Plan
SOL	I-80	Air Base Pkwy IC	Suisun Valley Rd/I-680	6.6	6.7			\$ 35.81	\$ 35.81	Medium Cost Option
Total Corridor I-80				65.8	64.4			\$ 389.05	\$ 984.25	
ALA	SR 84	Newark Blvd	Paseo Padre/Thornton incl. Toll Plaza Dumbarton Bridge	3.5				\$ 15.42	\$ 15.42	High Cost Option: PSR describes only 1 mile of HOV widening with possible ROW take. No specific plan details.
Total Corridor SR 84				3.5				\$ 15.42	\$ 15.42	
SC	SR 85	US 101 (South San Jose)	US 101 (Mountain View)			26.5	26.3	\$ 119.89	\$ 119.89	Medium Cost Option: North of I-280 (approx 7 miles). Low Cost Option and Medium Cost Option south of I-280. Standard outside and inside shoulders
Total Corridor SR 85						26.5	26.3	\$ 119.89	\$ 119.89	
SC	SR 87	US 101	SR 85			9.1	9.2	\$ 29.97	\$ 29.97	Low Cost Option: Construction cost for the VTA HOV segment on this route (7 miles) was \$68 Million. Input from VTA suggests using a low range cost to convert to HOT lane.
Total Corridor SR 87						9.1	9.2	\$ 29.97	\$ 29.97	
ALA	SR 92	Hesperian	Toll Plaza - San Mateo Bridge	1.6				\$ 7.05	\$ 7.05	High Cost Option
Total Corridor SR 92				1.6				\$ 7.05	\$ 7.05	
SM	US 101	Millbrae Ave	Whipple Ave			11.4	11.7	\$ 101.80	\$ 286.60	High Cost Option: Soundwalls to outside and minimal median shoulder.
SM	US 101	Whipple Ave	San Mateo/Santa Clara County Line			7.0	7.0	\$ 61.70	\$ 61.70	High Cost Option: Soundwalls to outside and minimal median shoulder.
SC	US 101	San Mateo/Santa Clara County Line	SR 25			49.9	48.6	\$ 194.29	\$ 377.19	Low Cost Option: South of San Jose to Cochrane, High & Medium Cost Option: From San Jose to north
MAR	US 101	SB 101/Seminary Ave & NB 101/SR1	San Antonio Rd			24.0	24.0	\$ 133.44	\$ 418.63	Low and Medium Cost Option: Novato, High Cost Option: Southern Marin. HOV widening from Petaluma to Novato assumed funded in Transporation 2030 Plan
SON	US 101	San Antonio Rd	Windsor River Rd			29.0	29.1	\$ 156.99	\$ 386.94	Medium Cost Option
Total Corridor US 101						121.3	120.4	\$ 648.21	\$ 1,531.05	
SC	SR 237	I-880	SR 85	9.7	9.9			\$ 86.38	\$ 131.18	High Cost Option: Outside shoulders 12'. Median shoulders vary from areas with 6' median shoulder to 10' -12' . Highway segment includes 11 bridge structures HOV widening from Mathilda to SR 85 assumed funded in Transportation 2030 Plan
Total Corridor SR 237				9.7	9.9			\$ 86.38	\$ 131.18	
SC	I-280	Magdalena Ave	US 101			15.0	15.3	\$ 81.59	\$ 81.59	Medium Cost Option
Total Corridor I-280						15.0	15.3	\$ 81.59	\$ 81.59	
ALA	I-580/680	HOV Connector						\$ -	\$ 325.00	No cost to convert HOV connector to HOT lane due to no additional ITS elements or striping requirements
ALA	I-580	San Joaquin County Line	I-680	20.9	21.0			\$ 112.83	\$ 322.13	Medium Cost Option: Roadway median already widen for future lane and shoulder. WB HOV from Greenville to Tassajara assumed funded in Transportation 2030 Plan
Total Corridor I-580				20.9	21.0			\$ 112.83	\$ 647.13	
SC	I-680	Caleveras	US 101			9.0	9.0	\$ 48.47	\$ 48.47	Medium Cost Option
SC	I-680	Alameda/Santa Clara County Line	Caleveras			2.5	2.5	\$ 12.98	\$ 12.98	Medium Cost Option
ALA	I-680	SR 84	Alameda/Santa Clara County Line			11.5	10.8	\$ 57.83	\$ 57.83	
ALA	I-680	Alcosta	SR 84			10.6	10.5	\$ 56.82	\$ 193.97	Medium Cost Option
CC	I-680/80	HOV Connector								No cost to convert HOV connector to HOT lane due to no additional ITS elements or striping requirements
CC	I-680	Marina Vista	Alcosta Blvd.			27.2	25.9	\$ 142.99	\$ 181.39	Medium Cost Option
SOL	I-680	I-80	I-780			12.4	12.3	\$ 66.51	\$ 264.11	Medium Cost Option: Standard outside shoulders with median shoulders varying from 10'-20'.
Total Corridor I-680						73.2	71.0	\$ 385.60	\$ 758.75	
ALA	I-880	98th Ave	Marina (SB) and Lewelling (NB)			28.3	27.2	\$ 149.31	\$ 175.31	Medium Cost Option
SC	I-880	SR 237	US 101			3.3	4.3	\$ 20.33	\$ 20.33	Medium Cost Option
ALA	I-880	16th Street	Merge with I-80 W				1.8	\$ 6.39	\$ 6.39	Medium and High Cost Option; Appears that median shoulder will be widened for future lane and shld.
Total Corridor I-880						31.5	33.3	\$ 176.03	\$ 202.03	
Sub-Total Lane Miles and Total Cost				120.9	114.4	276.6	275.5	\$ 2,189	\$ 4,797	
Total Lane Miles all Directions/Total Upgrade Costs including 2030HOV						787.4		\$ 4,797		

Note 1: Use \$ 8 million per lane mile if no PSR is available

Note 2: HOT upgrade cost may be a combination of the different costing options (low, medium, high) or one option is chosen due to specific information available.

Note: All Costs are in 2006 Dollars (\$2006)

Attachment E: Bay Are HOT Network Phasing Plan - Corridor Opening Sequence

Opening Year	I-680 Group		SC/SM Group		I-80 Group		Marin-Sonoma		I-880	
	Corridor	Comment		Comment	Corridor	Comment	Corridor	Comment	Corridor	Comment
By 2015 for demo projects	Calveras Note this includes: (a) ALA-680 SB SR 84 to ALA/SCL County line and (b) SCL-680 SB ALA/SCL County line to Calaveras.	Begins HOT lane operation with HOV requirement at 2+; HOV requirement increases to 3+ in 2035	SR 85 SC	Begins HOT lane operation with HOV requirement at 2+; HOV requirement increases to 3+ in 2020						
	I-580 ALA EB from Hacienda to Greenville	Begins HOT lane operation with HOV requirement at 2+; HOV requirement increases to 3+ in 2035	SR 101 SC from San Mateo/Santa Clara Co line to Cochrane	Begins HOT lane operation with HOV requirement at 2+; HOV occupancy increases to 3+ in 2035						
2015					I-80 ALA Central Ave (ALA Co line) to Bay Bridge Toll Plaza	Begins HOT lane operation at 3+ and stays at 3+ (test in 2nd scenario even though lane appears full)			SR 84 (bridge approach)	Begins HOT lane operation with HOV requirement at 2+; HOV requirement increases to 3+ in 2025
			SR 87 from US 101 to SR 85	Begins HOT lane operation with HOV requirement at 2+; HOV requirement increases to 3+ in 2040	I-80 CC Carquinez Bridge to Central Ave (ALA Co line)	Begins HOT lane operation at 3+ and stays at 3+ (test in 2nd scenario even though lane appears full)			SR 92 (bridge approach)	Begins HOT lane operation at HOV requirement of 2+; HOV lane requirement stays at 2+
			SR 237 I-880 to Mathilda	Begins HOT lane operation with HOV requirement at 2+; HOV requirement increases to 3+ in 2035					I-880 ALA 16th St to merge with I-80 W	Begins HOT lane operation at 3+ and stays at 3+
	Calaveras. Note this includes: (a) ALA-680 NB SR 84 to ALA/SCL County line and (b) SCL-680 NB ALA/SCL county line to Calaveras.	Begins HOT lane operation with HOV requirement at 2+; HOV requirement increases to 3+ in 2035	I-880 SC from SR 237 to US 101	Begins HOT lane operation with HOV requirement at 2+; HOV occupancy increases to 3+ in 2030	I-80 SOL from Airbase Parkway IC to SR 12	Begins HOT lane function at HOV occupancy of 2+ and HOV occupancy increases to 3+ in 2040			I-880 ALA/SC Marina to SR 237	Begins HOT lane function at HOV occupancy of 2+ and HOV occupancy increases to 3+ in 2025
	SR 4 CC from SR 160 to Port Chicago Highway	Begins HOT lane operation with HOV requirement at 2+; HOV requirement increases to 3+ in 2040	SR 237 SC Mathilda to SR 85	Begins HOT lane at HOV requirement of 2+ and HOV requirement goes to 3+ in 2035	I-80 SOL thru Vallejo (Carquinez Bridge through SR37)	HOV occupancy of 2+ with HOV occupancy increase at Carquinez bridge; HOV occupancy requirement increases to 3+ in 2040			I-880 ALA 98th to Marina/Lewelling	Begins HOT lane function at HOV occupancy of 2+ and HOV occupancy increases to 3+ in 2025
2020	I-680 CC from Benicia Bridge to Alcosta. Includes segments described as: Marina Vista to Alcosta (in E&F), N/O Waterfront (Benicia Bridge) to Alcosta (Connected Network); and NB segment between Rudyear and North Main (Connected Network)	Begins HOT lane operation when HOV lane requirement increases to 3+ in 2020	US 101 SM Whipple to County Line	Begins HOT lane function with HOV lane at 2+ and HOV goes to 3+ at 2035 due to SC 101 segment						
	I-580 ALA WB SJ Co to I-680	Begins HOT lane operation with HOV requirement at 2+; HOV requirement increases to 3+ in 2035	I-280 SC from Magdalena to Leland Ave	Begins operation with HOV lane at 2+ and HOV goes to 3+ at 2035						
	I-580 ALA EB Greenville to SJ Co	Begins HOT lane operation with HOV requirement at 2+; HOV requirement increases to 3+ in 2035								
	SR 4 CC from Port Chicago Hwy to I-680	Begins HOT lane operation with HOV requirement at 2+; HOV requirement increases to 3+ in 2040								
	SR4/I-680 CC HOV Connector Facility									
	I-680 ALA from Alcosta to SR 84	HOV requirement at 3+ due to adjoining segment of I-680 being at 3+								
	I-580/I-680 ALA Connector									
2025	I-680 SOL from I-80 to I-780	Begins HOT Lane operation with HOV lane requirement at 2+	US 101 SC Cochrane to SR 25	Begins operation with HOV lane at 2+ and HOV stays at 2+	I-80 SOL from SR 37 to SR 12 and from Airbase Parkway to Yolo Co line	Begins HOT lane operation with HOV requirement at 2+; HOV requirement increases to 3+ in 2040	US 101 Marin SB 101/Seminary and NB 101/SR 1 to SR 37	Begins HOT lane operation with HOV requirement at 3+		
	I-680/I-80 SOL Connector		US 101 SM Whipple to Millbrae	Begins HOT lane at HOV requirement of 2+ and HOV requirement goes to 3+ in 2040			US 101 Marin SR 37 to San Antonio Road	Begins HOT lane operation with HOV requirement at 3+ (5 years earlier than the HOV volumes would suggest going to 3+)		
			I-680 Calaveras to US 101	Begins HOT lane at HOV requirement of 2+ and HOV requirement goes to 3+ in 2035			US 101 Sonoma San Antonio Road to Old Redwood Highway	Begins HOT lane operation with HOV requirement at 3+ (5 years earlier than the HOV volumes would suggest going to 3+)		
			I-280 SC from Leland to US 101	Begins operation with HOV lane at 2+ and HOV goes to 3+ at 2035			US 101 Sonoma Old Redwood Hwy to Windsor River Rd	Begins HOT lane operation with HOV requirement at 3+		